

**Patent [19]**

[11] Patent Number: 09294919  
[45] Date of Patent: Nov. 18, 1997

---

**[54] SPACE CLEANING MATERIAL AND SPACE CLEANING METHOD USING IT**

[21] Appl. No.: 08132563 JP08132563 JP

[22] Filed: May. 01, 1996

[51] Int. Cl.<sup>6</sup> B01D05386; B01J03502; B03C00338

**[57] ABSTRACT**

**PROBLEM TO BE SOLVED:** To provide a space cleaning material which can attain the stability of a photoelectron emission material for a long time and the removal of coexistent gaseous pollutants at the same time.

**SOLUTION:** A space cleaning material in which a substance 33 which emits photoelectrons at least by being irradiated with ultraviolet rays and a substance which demonstrates a photocatalytic effect by being irradiated with ultraviolet rays are arranged on the same surface 31. In a method for cleaning a space containing harmful gas and fine particles, the cleaning material is irradiated with ultraviolet rays in an electric field to decompose and charge the harmful gas and the fine particles in the space to remove them. Au etc., can be used as the substance for emitting photoelectrons, and TiO<sub>2</sub>, etc., can be used as the photocatalyst.

\* \* \* \* \*